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**SENER**  
SECRETARÍA DE ENERGÍA



UC Mexico Initiative  
Energy Working Group

# **Technical Workshop on Efficiency, Renewables and Grid Management**

August 19-21, 2015

UC San Diego  
La Jolla, CA



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## Workshop Overview

### Day 1

- Introduction and Welcome Remarks
- Opening Comments
- Plenary Presentation: The Future of Microgrids
- Panel 1: Policy and Programmatic Foundations
- Networking Break
- Panel 2: Clean and Advanced Electricity Generation at the Community and Customer Level: Distributed Generation and Demand Response Approaches for the Customer and the Grid
- Luncheon Keynote
- Panel 3: Improving the Integration and Operation of Utility Scale Clean Generation
- Panel 4: Water and Energy Efficiency and Demand Re-sponse
- Open Discussion, Day 1 Conclusions and Next Steps



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## Workshop Overview

### Day 2

- Tour of On-Campus Microgrid and Renewable Energy
- Presentation on Workforce Development and Tour of SDG&E Energy Innovation Center
- Presentation on Carlsbad Desalination Plant
- Dinner (on your own)

### Day 3

#### Option A. All Day Tour

- Tour and Discussion on Community Scale Renewable Energy and Microgrid: Borrego Springs Microgrid

#### Option B. Morning Tour

- Tour of Scripps Institution of Oceanography

Workshop Concludes



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## Introduction and Welcome Remarks

Emilio Camacho, California Energy Commission

Sandra Brown, UC San Diego

Jeremy Martin, Institute of the Americas

Gerardo Hiriart, Representing SENER

Horst Simon, UC Mexico Initiative



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## Opening Comments

Chair Robert Weisenmiller, California Energy Commission

Emilio Camacho, California Energy Commission

César Contreras Guzmán, Secretaría de Energía (SENER)



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## **Plenary Presentation:**

## **The Future of Microgrids**

James Avery  
Chief Development Officer, SDG&E



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## Panel 1: Policy and Programmatic Foundations

**Moderator: Hermann Tribukait Vasconcelos**

**César Contretras Guzmán, SENER**

- Doing Business in Mexico's New Energy Sector

**Carlo Bonfante, Secretary of Economic Development at Baja California**

- Clean Generation in the Baja California's Grid

**Emilio Camacho, California Energy Commission**

- California's Energy Policies and Advancements Toward the Renewable Energy Goals

**Guido Franco, California Energy Commission**

- Regional Climate Change Science and Energy Implications to California

**Adrian Fernandez, National Ecology Institute**

- Deep Decarbonization Pathways for Mexico



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**Networking Break**





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## Panel 2: Clean and Advanced Electricity Generation at the Community and Customer Level: DG and DR Approaches for the Customer and the Grid

**Moderator: Rizaldo Aldas**

**Jose Vivas & Dr. Vahid Salehi**, Power Analytics Corporation

- Military Microgrid: Insights from the Navy Bases in San Diego

**Manal Yamout**, Caliber Strategies

- Demand Side Solutions for Grid Operation and Facilitation of Renewable Energy

**Jack Moore**, Energy + Environmental Economics

- Renewable Futures Across California and Mexico

**Luis Alfonso Cano**, SENER

- The Future of Distributed Generation in Mexico



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## Lunch Break

**Luncheon Keynote:**

**Veerabhadran Ramanathan**

Distinguished Professor of Climate Sciences, UC San Diego



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## Panel 3: Improving the Integration and Operation of Utility Scale Clean Generation

**Moderator: Michael Sokol**

**Haresh Kamath, EPRI**

- Energy Storage Valuation and Modeling

**Jeff Ressler, Clean Power Research**

- Forecasting tools

**Jim Walker, EDF Renewable Energy**

- Integrating Wind Energy and other Clean Utility Scale Power Generation in Mexico

**José Pablo Fernández, Grupo Dragón**

- Integrating Wind and Solar Energy In Mexico

**Ali Yari, SEMPRA**

- Utility Perspective on Reliability, Integrating Utility Scale Renewable Generation, and Managing Grid Resource in California and Mexico



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**Afternoon Break**



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## Panel 4: Water and Energy Efficiency and Demand Response

**Moderator: Laurie ten Hope**

**Virginia Lew**, California Energy Commission

- Increasing Water and Energy Efficiency to Meet Future Needs

**Martha Brook**, California Energy Commission

- Overview of Efforts to Increase Building Energy Efficiency

**Mary Ann Piette**, LBNL-DRRC

- Demand Response Solutions

**G.P. Li**, California Plug Load Research Center

- Improving Energy Efficiency of Plug-Load Devices

**Brenda Valdez**, CONUEE

- Overview of Energy Efficiency and Demand Response Programs and Policies in Mexico



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## Open Discussion, Day 1 Conclusions and Next Steps

Comments from Participants

- Moderator: Jeremy Martin, Institute of the Americas

Concluding Remarks and Key Takeaways

- Gerardo Hiriart, Representing SENER

Concluding Remarks and Key Takeaways

- Emilio Camacho, California Energy Commission,



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## Reminders

Day 1 Dinner Reception

Sponsored by Mexico's Secretaria de Energia (SENER)

Location: **Institute of the Americas Plaza**  
10111 North Torrey Pines Road,  
La Jolla

Time : **6:00 to 7:30 p.m.**





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## Reminders

Day 2: Tour and Discussion on Community Renewable Energy, Microgrid, and SDG&E Innovation Center

Tour Bus will pick up participants at the following hotels beginning at **9:00 a.m.:**

- Estancia La Jolla Hotel
- Marriott Residence Inn
- Sheraton La Jolla Hotel

Tour of On-Campus Microgrid and Renewable Energy starts at **9:30 a.m.**





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## Reminders

### Day 3 – Optional Tours

#### A. ALL DAY TOUR - Tour and Discussion on Community Scale Renewable Energy and Microgrid: Borrego Springs Microgrid

Advisory – All Guests and Employees Need:

- ✓ Hard Hat, Eye Protection, 100% Cotton Long Sleeve Shirt and Pants, Close-Toed Shoes
  - \* SDG&E will supply Hard Hats and Eye Protection
  - \* It is recommended for guests to bring a cooler change of clothes
- Meet at **Marriott Residence Inn Hotel by 7:45 a.m.** for orientation; bus departs for Borrego Springs by 8:00 a.m.

#### B. MORNING TOUR - Tour of Scripps Institution of Oceanography

Meet by 9:50 a.m. at:

- **Birch Aquarium**, 2300 Expedition Way, La Jolla, CA 92037
- Carpooling is encouraged due to parking limitations



# Acknowledgement

*California Energy Commission Staff and Workshop Organizers would like to acknowledge:*



**Secretaria de Energia (SENER)**

UC San Diego

**University of California, San Diego**



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**San Diego Gas & Electric (SDG&E)**